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Integrated  
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Other Views:  
INPADOC

Title: JP2184061A2: TEMPERATURE DETECTING STRUCTURE OF INTEGRATED CIRCUIT PACKAGE

Country: JP Japan

Kind: A

Inventor(s): UMEZAWA KAZUHIKO

Applicant/Assignee  
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Issued/Filed Dates:

July 18, 1990 / Jan. 11, 1989

Application Number:

JP1989000005128

IPC Class:

H01L 23/58; H05K 7/20;

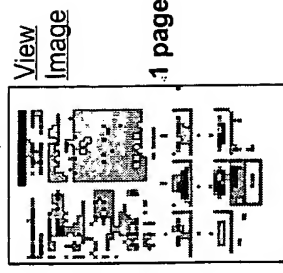
Priority Number(s):

Jan. 11, 1989 JP1989000005128

Abstract:

**Purpose:** To attach and remove an integrated circuit package without awareness of connection of a detected temperature signal at all by accommodating a temperature sensor in a case having the same part height as another integrated circuit element, and detecting the temperature of the surface of a cooling device, which is attached to cool the integrated circuit element so as to face the upper surface of the element, with the temperature sensor.

**Constitution:** A case 5 of a temperature detector 2 is designed so that the case 5 has the same part height as an integrated circuit element 1. A minute gap between the upper surface of the case 5 and a cooling device 12 is filled with heat conductive compound 17. Heat which is generated in the integrated circuit 1 is transferred to the cooling device 12 through the heat conductive compound 17 and discharged into liquid refrigerant flowing through a refrigerant flow path 15. At this time, the temperature at the facing surfaces of



the cooling device 12 and the integrated circuit element 1 has a certain constant temperature difference with respect to the temperature of the P-N junction in the integrated circuit element 1. Therefore, the temperature of the P-N junction of the integrated circuit element 1 can be computed by computation or experiment.  
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Family:

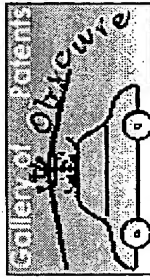
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Other Abstract Info:

DERABS G90-084869

Foreign References:

No patents reference this one



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